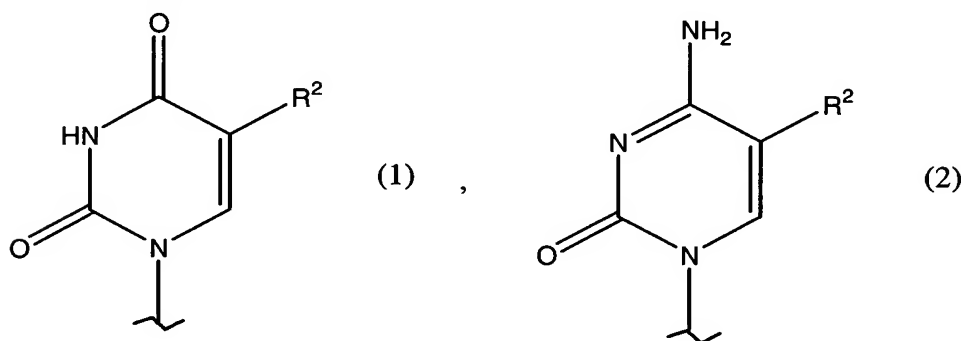


This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

1-127 (Canceled).

128 (Currently Amended). A primer for amplification or detection of a nucleic acid, the primer comprising an oligomer, a tautomer, solvate or salt thereof, the oligomer having at least one base of formula (1) or (2):



wherein, at least one base is of formula (1), where  $R^2$  is selected from the group consisting of propynyl, ~~propenyl~~, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl, or

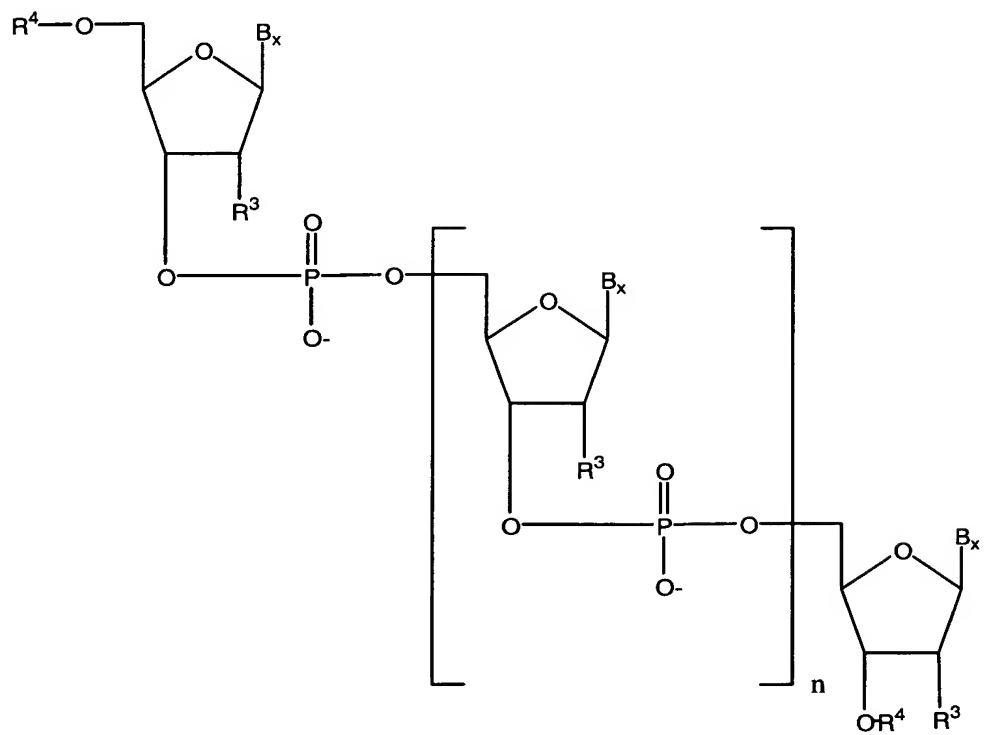
at least one base is of formula (2), where  $R^2$  is selected from the group consisting of propynyl, ~~propenyl~~, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl.

129 (Previously Presented). The primer of claim 128, wherein  $R^2$  is propynyl or 3-methyl-1-butynyl.

130 (Previously Presented). The primer of claim 128, wherein  $R^2$  is a propynyl.

131 (Previously Presented). The primer of claim 128, wherein  $R^2$  is 3-methyl-1-butynyl.

132 (Previously Presented). The primer of claim 128, wherein the oligomer has the formula:



wherein

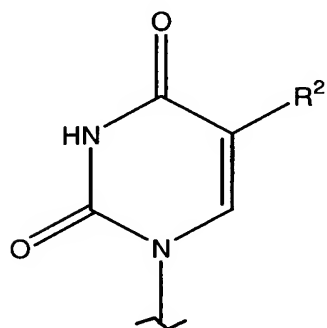
each  $R^3$  is independently selected from the group consisting of H, OH, F,  $OCH_3$ ,  $OC_2H_5$ ,  $OC_3H_7$ ,  $SCH_3$ ,  $SC_2H_5$ ,  $SC_3H_7$ ,  $OC_3H_5$ , and  $SC_3H_5$ ;

each  $R^4$  is independently selected from the group consisting of H and a blocking group;

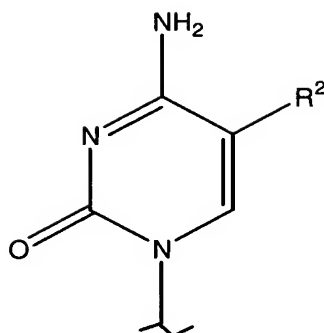
$n$  is an integer of from 4 to 30; and

$B_x$  is a purine or pyrimidine base, at least one of said  $B_x$  being (1) or (2).

133 (Currently Amended). A probe for amplification or detection of a nucleic acid, the probe comprising an oligomer, the oligomer having at least one base of formula (1) or (2):



(1) ,



(2)

wherein, at least one base is of formula (1), where  $R^2$  is selected from the group consisting of propynyl, propenyl, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl, or

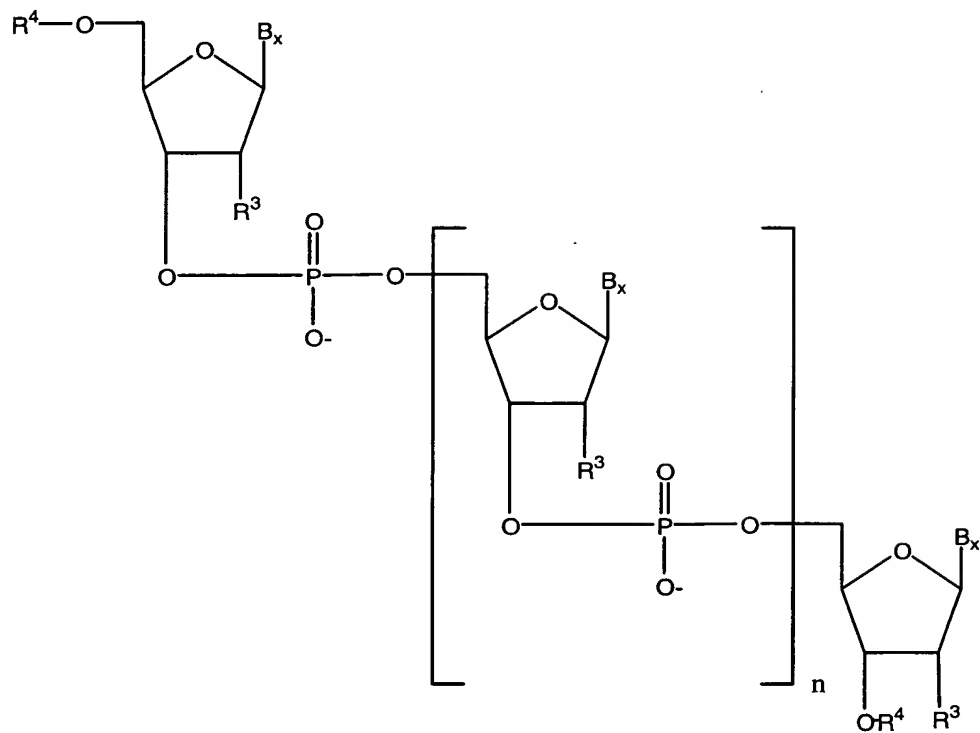
at least one base is of formula (2), where  $R^2$  is selected from the group consisting of propynyl, propenyl, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl.

134 (Currently Amended). The ~~primer~~ probe of claim 133, wherein  $R^2$  is propynyl or 3-methyl-1-butynyl.

135 (Currently Amended). The ~~primer~~ probe of claim 133, wherein  $R^2$  is a propynyl.

136 (Currently Amended). The ~~primer~~ probe of claim 133, wherein  $R^2$  is 3-methyl-1-butynyl.

137 (Currently Amended). The ~~primer~~ probe of claim 133, wherein the oligomer has the formula:



wherein

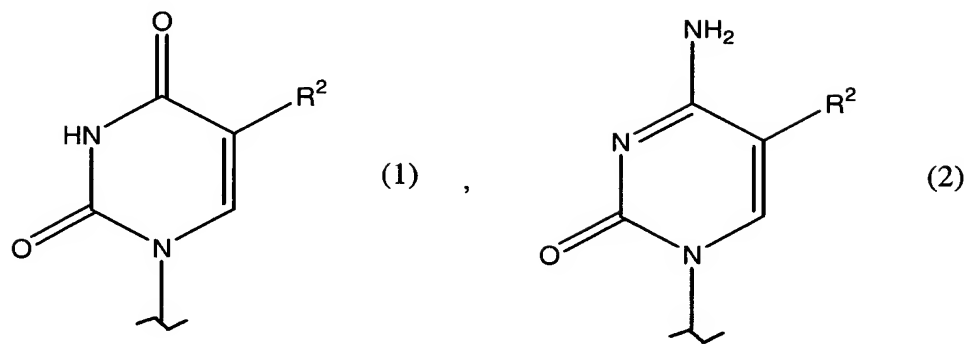
each  $R^3$  is independently selected from the group consisting of H, OH, F,  $OCH_3$ ,  $OC_2H_5$ ,  $OC_3H_7$ ,  $SCH_3$ ,  $SC_2H_5$ ,  $SC_3H_7$ ,  $OC_3H_5$ , and  $SC_3H_5$ ;

each  $R^4$  is independently selected from the group consisting of H and a blocking group;

$n$  is an integer of from 4 to 30; and

$B_x$  is a purine or pyrimidine base, at least one of said  $B_x$  being (1) or (2).

138 (Previously Presented). A pair of primers for amplification or detection of a nucleic acid, at least one of said primers comprising an oligomer, said oligomer having at least one base of formula (1) or (2):



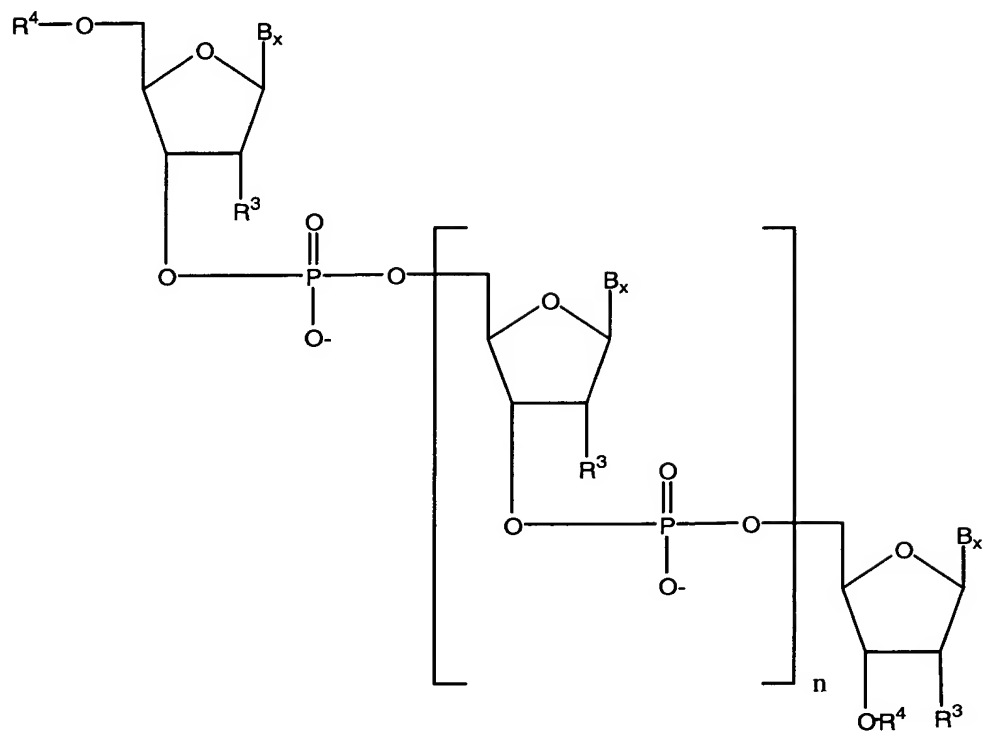
wherein R<sup>2</sup> is selected from the group consisting of propynyl, propenyl, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl.

139 (Currently Amended). The ~~primer~~ pair of primers of claim 138, wherein R<sup>2</sup> is propynyl or 3-methyl-1-butynyl.

140 (Currently Amended). The ~~primer~~ pair of primers of claim 138, wherein R<sup>2</sup> is a propynyl.

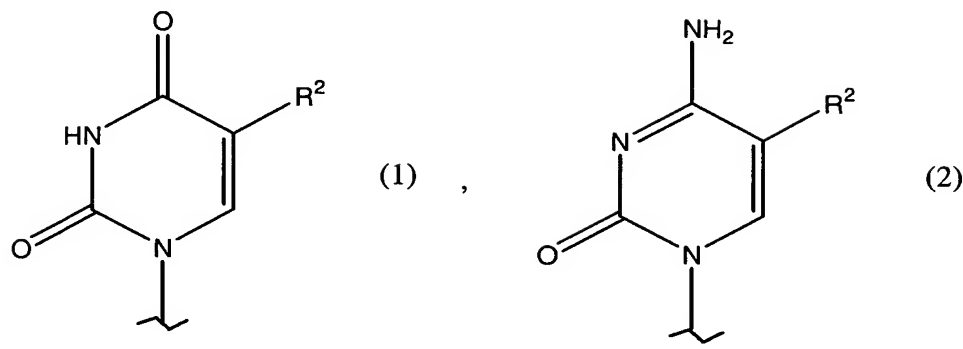
141 (Currently Amended). The ~~primer~~ pair of primers of claim 138, wherein R<sup>2</sup> is 3-methyl-1-butynyl.

142 (Currently Amended). The ~~primer~~ pair of primers of claim 138, wherein the oligomer has the formula:



$B_x$  is a purine or pyrimidine base, at least one of said  $B_x$  being (1) or (2).

Page 7 of 11



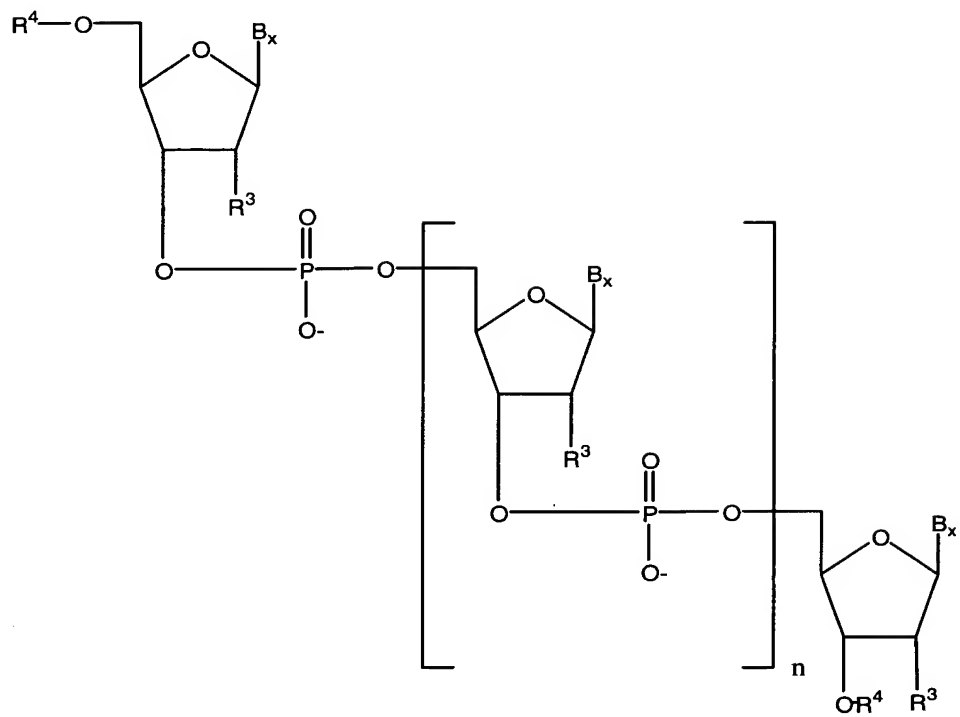
wherein R<sup>2</sup> is selected from the group consisting of propynyl, propenyl, 3-buten-1-ynyl, 3-methyl-1-butynyl, 3,3-dimethyl-1-butynyl, phenyl, m-pyridinyl, p-pyridinyl and o-pyridinyl.

144 (Previously Presented). The pair of primers of claim 143, wherein R<sup>2</sup> is propynyl or 3-methyl-1-butynyl.

145 (Previously Presented). The pair of primers of claim 143, wherein R<sup>2</sup> is a propynyl.

146 (Previously Presented). The pair of primers of claim 143, wherein R<sup>2</sup> is 3-methyl-1-butynyl.

147 (Previously Presented). The pair of primers of claim 143, wherein the oligomer has the formula:



wherein

each  $R^3$  is independently selected from the group consisting of H, OH, F,  $OCH_3$ ,  $OC_2H_5$ ,  $OC_3H_7$ ,  $SCH_3$ ,  $SC_2H_5$ ,  $SC_3H_7$ ,  $OC_3H_5$ , and  $SC_3H_5$ ;

each  $R^4$  is independently selected from the group consisting of H and a blocking group;

$n$  is an integer of from 4 to 30; and

$B_x$  is a purine or pyrimidine base, at least one of said  $B_x$  being (1) or (2).